

**REMARKS**

In the Office Action, claims 1-4, 12-28, 36-46, 48-53 and 55-57 were rejected. All of the pending claims are believed to be allowable over the prior art references cited by the Examiner. Reconsideration and allowance of all pending claims are respectfully requested in view of the arguments summarized below.

**Rejections Under 35 U.S.C. § 103**

In the Office Action, claims 1-3, 12-14, 25-27, 39-41, 50-52 and 55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willoughby et al., U.S. Patent No. 6,549,880 (hereinafter "Willoughby") in view of Weinstock et al., U.S. Patent No. 6,223,143 (hereinafter "Weinstock") and further in view of Goyal et al., U.S. Patent No. 5,625,575 (hereinafter "Goyal"). Claims 4, 15, 19-22, 24, 28, 42 and 53 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willoughby in view of Weinstock and Goyal and further in view of Spira et al., U.S. Patent Application No. 2003/0172002 (hereinafter "Spira"). Claims 16, 17, 23, 36, 38, 44-46, 48, 49 and 57 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willoughby in view of Spira, Wegerich et al., U.S. Patent Application No. 2003/0183971 (hereinafter "Wegerich"), and Weinstock and further in view of Goyal. Claims 18 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willoughby in view of Weinstock and further in view of Spira, Wegerich, Goyal, Gross et al., U.S. Patent No. 5,774,379 (hereinafter "Gross") and Cook, U.S. Patent No. 6,546,378. Claims 43 and 56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Willoughby in view of Spira and further in view of Wegerich and Goyal.

Applicants respectfully assert that the present invention, as recited in independent claims 1, 12, 16, 19, 25, 36, 39, 43, 50 and 56 is patentable over the cited references alone or in combination. Each independent claim recites, in generally similar language, *movie mode display of the reliability analysis*. See, Application, page 28 lines 1-27. The Examiner stated that Goyal "teaches a visualization component that provides movie mode

display of the reliability analysis". Office Action, page 4; citing Goyal at column 1, lines 8-9; column 14, lines 1-4; column 30, lines 17-26; and column 31, lines 40-45.

Applicants respectfully submit that Goyal does not describe *any reliability analysis whatsoever*. Goyal does nothing but suggest the use of movie playback mode for displaying parts. However, it is *not* known in the art to present the reliability analysis in movie mode. None of the other references teaches such display of reliability analysis, and indeed the Examiner does not suggest as much. Thus, even if combined, the reference would not teach all of the recitations of the claims, particularly the movie mode display of reliability analysis.

Further, the Applicants respectfully submit that the references *cannot be fairly combined* because Goyal does not describe any reliability analysis whatsoever. One skilled in the art will not be motivated to use the movie mode display of mechanism parts as described in Goyal to present the reliability analysis in movie mode. There is no suggestion to combine the cited reference absent the present application. The only possible suggestion the Examiner can find is from the Application itself. It is not the Applicants' intention to view the references individually, but to argue that the references cannot be combined or, at the very least, that there is no motivation in the art for doing so.

When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Applicants respectfully submit that none of the references suggests the combination relied upon by the Examiner or a

motivation for such a combination. Accordingly, Applicants believe that the combination is not obvious to one skilled in the art and that the Examiner is using hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

The Examiner argued that Goyal teaches presenting simulation results on a videotape and then viewing the tape later at various controlled speeds. The Examiner further argued that simulation is solving the mathematical model of a system on a computer and producing the results. Further, the results can be presented on a display screen for the user to see or can be recorded on a videotape to play later and for analysis of the results. The Examiner then made a logical jump and stated that reliability analysis "is very similar to simulation since it uses the mathematical models to compute some values and generate the outputs. Reliability analysis produces probability charts and outputs similar to the probability charts and outputs produced by any other simulation". Office Action, page 28. Moreover, apparently because reliability analysis involves simulation, one of ordinary skill in the art would use the teachings of Goyal to record the reliability simulation outputs on a video tape and play them later in a movie mode.

The Applicants respectfully submit that Goyal bears no relation to reliability or any similar conceptual analysis. On the contrary, Goyal teaches display of simulated physical objects and/or components, and the simulation of the interaction of rigid bodies. Goyal has nothing to do with reliability analysis of a system. The Examiner relates simulation or visualization to reliability analysis because of mathematics. But any type of simulation or visualization will require mathematics. *This does not mean that all types of simulation or visualization is equivalent to or can be even compared to reliability analysis.* Goyal displays parts because parts lend themselves to display, particularly their movement in movie mode. This is not generally the case of analyses such as for reliability.

Applicants respectfully assert that Goyal for that matter is simply non-analogous art. For the teachings of a reference to be prior art under 35 U.S.C. § 103, there must be some basis for concluding that the reference would have been considered by one skilled in the particular art, working on the particular problem with which the invention pertains. *In re Horne*, 203 U.S.P.Q. 969, 971 (C.C.P.A. 1979). Non-analogous art cannot properly be pertinent prior art under 35 U.S.C. § 103. *In re Pagliaro*, 210 U.S.P.Q. 888, 892 (C.C.P.A. 1981). The determination of whether a reference is from a non-analogous art is set forth in a two-step test given in *Union Carbide Corp. v. American Can Co.*, 724 F.2d 1567, 220 U.S.P.Q. 584 (Fed. Cir. 1984). *In Union Carbide*, the court found that the first determination was whether “the reference is within the field of the inventor’s endeavor.” If it is not, one must proceed to the second step “to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved.” In regard to the second step, *Bott v. Fourstar Corp.*, 218 U.S.P.Q. 358 (E.D. Mich. 1983) determined that “analogous art is that field of art which a person of ordinary skill in the art would have been apt to refer in attempting to solve the problem solved by a proposed invention.” “To be relevant the area of art should be where one of ordinary skill in the art would be aware that similar problems exist.” *Id.*

Applicants respectfully submit that one skilled in the art of reliability analysis would not contemplate a movie mode display of reliability analysis on the basis of teachings in Goyal of movie mode display of physical parts and their simulated movement. Applying the *Union Carbide* test, the display or simulation of movement of parts set forth in Goyal is certainly not in the inventors’ field of endeavor. The present field of endeavor relates to reliability analysis, including consideration of many factors and assumptions as set forth in the present application. Goyal is simply not concerned at all with this area, but on the contrary relates to the physics of movement and interaction of physical parts that can be simulated by a computer. Thus, the reference is not in the inventors’ field of endeavor.

According to the second element of the *Union Carbide* test, then, it must be determined whether the reference is reasonably pertinent to the particular problem with which the inventors were involved. Applicants submit that it is not. Goyal relates, as noted above, to the physics of movement of rigid bodies, such as mechanical parts. The problem of such movement is their interaction, such as in accordance with the principles of Newtonian physics. This problem is not similar to the problems associated with understanding and conceptualizing reliability of complex systems based upon a range of inputs and factors that can be considered in a simulation. Because the problems are so different, then, Applicants submit that the second prong of the *Union Carbide* test is simply not satisfied. Accordingly, Goyal is non-analogous art.

In summary, it is the Applicants' position that the primary references cannot be combined with Goyal to arrive at the claimed invention absent reliance upon the present claims themselves. Any basis for the combination is, in the Applicants' view mere conjecture on the part of the Examiner. Such is insufficient to establish a *prima facie* case of obviousness.

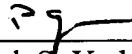
In view of the forgoing deficiencies in the cited art, the Examiner has failed to establish a *prima facie* case of obviousness of claims 1, 12, 16, 19, 25, 36, 39, 43, 50 and 56. These claims, and the claims depending therefrom are therefore believed to be clearly patentable over the cited combination. Reconsideration and allowance of all pending claims, rejected on the basis of 35 U.S.C. § 103, are requested.

**Conclusion**

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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